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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/632,311

07/30/2003

Marc A. Viredaz

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EXAMINER

WALLING, MEAGAN S

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/632,311	Applicant(s) VIREDAZ ET AL.	
	Examiner Meagan S. Walling	Art Unit 2863	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-12, 14-19, 21-24 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 7, 13, 20, 25 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/30/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/30/06 has been entered.

### ***Claim Objections***

1. Claim 25 is objected to because of the following informalities:

Claim 25 recites the limitation "the computer program product" in claim 19. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 8-12, 14-19, 21-24, and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Patel et al. (US 2004/0264124).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Patel et al. teaches determining a workload within a data center (par. 25); determining an amount of heat being generated as a function of the workload (par. 25); and activating each of a plurality of different types of cooling systems within the data center in an optimal fashion based on the heat being generated (par. 26).

Regarding claim 2, Patel et al. teaches that the optimal fashion is based on a cost associated with the activation of each of the plurality of different cooling systems (par. 26).

Regarding claim 3, Patel et al. teaches deactivating one or more of the activated plurality of different types of cooling systems within the data center based on a reduction in the amount of power being consumed by the workload (par. 67).

Regarding claim 4, Patel et al. teaches that the amount of heat being generated is a function of an amount of power being consumed by the data center (par. 26).

Regarding claim 5, Patel et al. teaches that the cooling systems has a cooling capability wherein the cooling capability is a function of an amount of heat that can be removed by the cooling system and the act of activating each of a plurality of different cooling systems in an optimal fashion further comprises; activating each of a plurality of different cooling systems

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based on the amount of heat that can be removed by each of the plurality of cooling systems (par. 28).

Regarding claim 6, Patel et al. teaches that the plurality of cooling systems comprises an air-based cooling system, a liquid-based cooling system, and a gas-based cooling system (par. 4).

Regarding claim 8, Patel et al. teaches means for determining a workload within a data center (par. 25); means for determining an amount of heat being generated as a function of the workload (par. 25); and means for activating each of a plurality of different types of cooling systems within the data center in an optimal fashion based on the heat being generated (par. 26).

Regarding claim 9, Patel et al. teaches means for deactivating one or more of the activated plurality of different types of cooling systems within the data center based on a reduction in the amount of heat being generated (par. 67).

Regarding claim 10, Patel et al. teaches that the amount of heat being generated is a function of an amount of power being consumed by the data center (par. 26).

Regarding claim 11, Patel et al. teaches that the cooling systems has a cooling capability wherein the cooling capability is a function of an amount of heat that can be removed by the cooling system and the means for activating each of a plurality of different cooling systems in an optimal fashion further comprises; means for activating each of a plurality of different cooling systems based on the amount of heat that can be removed by each of the plurality of cooling systems (par. 28).

Regarding claim 12, Patel et al. teaches that the plurality of cooling systems comprises an air-based cooling system, a liquid-based cooling system, and a gas-based cooling system (par. 4).

Regarding claim 14, Patel et al. teaches a global computer system (par. 4); a plurality of different cooling systems coupled to the global computer system (par. 4); a cooling system control module coupled to the global computer system and the plurality of different cooling systems wherein the cooling system control module includes logic for: determining a workload within the global computer system (par. 25); determining an amount of heat being generated as a function of the workload (par. 25); and activating each of a plurality of different types of cooling systems coupled to the global computer system in an optimal fashion based on the amount of heat being generated (par. 26).

Regarding claim 15, Patel et al. teaches that the optimal fashion is based on a cost associated with the activation of each of the plurality of different cooling systems (par. 26).

Regarding claim 16, Patel et al. teaches deactivating one or more of the activated plurality of different types of cooling systems within the data center based on a reduction in the amount of heat being generated (par. 67).

Regarding claim 17, Patel et al. teaches that an amount of heat being dissipated by the global computer system is a function of an amount of power being consumed by the global computer system (par. 26).

Regarding claim 18, Patel et al. teaches that the plurality of cooling systems has a cooling capability wherein the cooling capability is a function of an amount of heat that can be removed by the cooling system and the act of activating each of a plurality of different cooling systems in an optimal fashion further comprises; activating each of a plurality of different cooling systems based on the amount of heat that can be removed by each of the plurality of cooling systems (par. 28).

Regarding claim 19, Patel et al. teaches that the plurality of cooling systems comprises an air-based cooling system, a liquid-based cooling system, and a gas-based cooling system (par. 4).

Regarding claim 21, Patel et al. teaches determining a workload within a global computer system (par. 25); determining an amount of heat being generated as a function of the workload (par. 25); and activating each of a plurality of different types of cooling systems coupled to the global computer system in an optimal fashion based on the amount of heat being generated (par. 26).

Regarding claim 22, Patel et al. teaches that the optimal fashion is based on a cost associated with the activation of each of the plurality of different cooling systems (par. 26).

Regarding claim 23, Patel et al. teaches deactivating one or more of the activated plurality of different types of cooling systems within the data center based on a reduction in the amount of heat being generated (par. 67).

Regarding claim 24, Patel et al. teaches that the plurality of cooling systems comprises an air-based system, a liquid-based cooling system, and a gas-based cooling system (par. 4).

Regarding claim 26, Patel et al. teaches determination logic for: determining a workload within a data center (par. 25); and determining an amount of heat being generated as a function of the workload (par. 25); and activation logic for activating each of a plurality of different types of cooling systems within the data center in an optimal fashion based on the amount of heat being generated (par. 26).

Regarding claim 27, Patel et al. teaches deactivating one or more of the activated plurality of different types of cooling systems within the data center based on a reduction in the amount of heat being generated (par. 67).

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

msw

**BRYAN BUI**  
**PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to read 'B. Bui', is written below the printed name and title.